

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS**

AMAZIN' RAISINS INTERNATIONAL, INC.,

Plaintiff,

v.

OCEAN SPRAY CRANBERRIES, INC.,

Defendant.

Civil Action No. 1:04-cv-12679-MLW

**OCEAN SPRAY'S MEMORANDUM IN SUPPORT OF ITS MOTION FOR SUMMARY
JUDGMENT OF NONINFRINGEMENT**

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INTRODUCTION

This is a patent infringement action in which Plaintiff Amazin' Raisins International, Inc. ("ARI") asserts that Ocean Spray's process of making certain varieties of its sweetened dried cranberry products infringes claim 1 of United States Patent No. 5,188,861 ("the Mazin patent"). The Mazin patent has narrow claims directed to an alleged improvement of a process for making dried fruit products that was patented in the 1920s. However, the alleged improvement—the use of acids to remove flavor—makes the Mazin process entirely unsuitable for cranberry products. For this reason and countless others, Ocean Spray does not use the Mazin process, but rather uses a unique process it developed years ago and for which it received a patent in 1994.

The differences in the Ocean Spray process and the claimed Mazin process present a clear case of noninfringement. First, the asserted claim requires the treatment of *dried* fruit, while Ocean Spray treats *fresh, frozen* fruit. The claim also requires the use of acid to *remove* flavor. Ocean Spray does not use acid to remove flavor, but rather uses water. Ocean Spray only uses acid later in the process to *restore* the flavor that was removed—a use common in the food industry and distinguished during the prosecution of the Mazin patent. The claim also requires that the process yield a *non-sticky* product that is easy to handle. However, Ocean Spray's process yields an *extremely sticky* product that requires several innovative processing steps just to minimize the stickiness enough to handle and package the dried product.

The significant differences between Ocean Spray's process and the Mazin process should not be a surprise to ARI. These differences were made known to ARI long before it even brought suit. Since then, ARI has inspected Ocean Spray's plant, received product samples, conducted written discovery, and reviewed thousands of documents only to confirm that the accused process works just as disclosed in Ocean Spray's patent and just as Ocean Spray said it

did years ago. There is no dispute over Ocean Spray's process and the issues presented here are ripe for summary judgment. Infringement requires that each and every limitation of the claim must be present in an accused process. Here, there are at least three differences, and any one is sufficient to defeat ARI's infringement claim as a matter of law. Accordingly, the Court should grant Ocean Spray's motion and dispose of this case.

BACKGROUND

A. The Process Claimed in the Mazin Patent Treats Dried Fruit With Acids To Remove Flavor and Ultimately Forms a Product that Is Not Sticky.

The Mazin patent discloses a process for making dried fruit products with flavors that are different from the original flavor of the underlying fruit. (Woodford Decl. Ex. 1 at 1:65-67.) For example, the patent describes raisins with various flavors including cherry, strawberry, raspberry, banana, pina colada, and lemon-lime. (*Id.* at 6:64-8:9.) These flavored fruit products can be used as snack foods or as ingredients in cookies, cakes, and cereals. (*Id.* at 1:18-21.)

Methods of making dried fruit products with non-natural flavors have been around for nearly 100 years. The background section of the Mazin patent discusses one of these early methods, which was the subject of United States Patent No. 1,717,489 issued in 1929 to Bronson Barlow ("the Barlow patent"). (*Id.* Ex. 2.) The Barlow process combines fruits such as apples, prunes, and raisins that have either been dried or are in the process of drying with the juice of another fruit. (*Id.* at 1:3-9.) According to the Barlow patent, the dried fruits are placed in a vat and either sprayed or immersed in the juice of another fruit for flavoring. (*Id.* at 1:32-50.) Once the flavoring process is complete, the fruit may be dried with juice remaining on the outer surface to make a sticky product, or the juice may be rinsed off with water before drying to eliminate some of the stickiness. (*Id.* at 1:75-81.)

The method disclosed in the Mazin patent is simply a variation of this well-known and widely-used process. The Mazin process begins with a dried fruit.¹ According to the patent, “any dried fruit which contains between about 10% to 18% moisture may be employed.” (*Id.* Ex. 1 at 3:60-62.) Next, the dried fruit is placed in a solution to perform a “one-step rehydration.” (*Id.* at 4:14-17.) The rehydrating solution contains water and an acidulant,² which according to the patent removes natural flavor from the dried fruit. (*Id.* at 4:32-44.) The solution may also contain flavoring, such as fruit juices and artificial flavors.³ (*Id.* at 4:32-34, 4:61-5:36.) The patent explains that sodium citrate—the sodium salt of citric acid—may also be added to the flavor solution to provide “a more tart taste.” (*Id.* at 5:38-41.) After rehydrating the dried fruit and removing the flavor, the fruit is dehydrated to bring its moisture content back to the range of 12% to 18%. (*Id.* at 5:42-50, 6:22-34.)

According to the patent, dried fruit products made with the Mazin process provide “improved flow properties” because the outer surface of the fruit is “substantially non-sticky.” (*Id.* at 2:25-30, 3:17-19.) The patent criticizes conventional methods, such as the one disclosed in the Barlow patent, because they form product with “lumps” that cause difficulties in handling, packaging, obtaining exact product weights, and incorporating the fruit into other food stuffs. (*Id.* at 3:17-23.) To avoid this problem, the patent discusses several methods of cleansing the outer surface of the dried fruit product. For example, the patent states “it is advantageous” to wash the dried fruit to remove oils. (*Id.* at 6:18-20.) The patent also claims that the acids used to

¹ While the patent states that raisins are the preferred dried fruit for the process, it states that other dried fruits such as peaches, apples, pears, prunes, apricots, and cherries may be used. (Woodford Decl. Ex. 1 at 3:58-4:4.) Not once does the Mazin patent mention cranberries.

² The patent identifies several “suitable” acidulants that may be used in the process, such as tartaric acid, malic acid, citric acid, ascorbic acid, phosphoric acid, and fumaric acid. (Woodford Decl. Ex. 1 at 4:44-47.)

³ Alternatively, the fruit may be flavored after dehydration. (Woodford Decl. Ex. 1 at 6:38-39.)

remove flavor will break down any alkali film on the fruit that may inhibit absorption through the fruit's outer surface. (*Id.* at 4:39-44.) In addition, the patent states that the absence of a sweetening agent on the outer surface of the fruit "provides a product with superior flow properties." (*Id.* at 3:41-46.) In other words, the Mazin process makes a non-sticky product because it keeps oil and flavoring agents off of the fruit's outer surface.

B. During Prosecution, the Applicants Distinguished Processes that Treated Fresh Fruit, Used Acids for Flavoring, and Made Products With a Sticky Outer Surface.

During the prosecution of the Mazin patent, claim 1 was rejected by the patent office as obvious in light of the Barlow patent in combination with United States Patent No. 4,542,033 issued to Agarwala ("the Agarwala patent") and the CRC Book of Food Additives, which the patent examiner called "the Furia text." (Woodford Decl. Ex. 3 at 2-3.) The examiner explained that the Barlow patent disclosed every limitation in claim 1 except for the use of "accessory ingredients, e.g. acids." (*Id.* at 3.) However, the examiner found that "the claimed acids are known food additives of known properties" and are disclosed in both the Agarwala patent, which discloses a method of treating fruit, and the Furia text. (*Id.*) The examiner concluded that the use of acids disclosed in these references in combination with the Barlow process was a "routine matter well within the ordinary skill of one in the art" and the claims recite "nothing more than an obvious recipe." (*Id.* at 4.)

To overcome the examiner's rejection, the applicants did not amend claim 1, but rather distinguished the claimed process from the teachings in each of the prior art references. In doing so, the applicants repeatedly emphasized that the claimed process is only directed to the treatment of *dried* fruit. For example, the applicants reaffirmed the statements in the patent specification and argued that the process is "a one step rehydration and a one step dehydration, which process is advantageous over Barlow." (Woodford Decl. Ex. 4 at 4.) A "one-step

rehydration” cannot occur unless the process starts with a dried fruit. Indeed, the applicants also distinguished the Agarwala patent on the basis that the disclosed process treated fresh fruit (including previously frozen fruit)⁴ as opposed to dried fruit:

Applicants submit that Agarwala teaches the use of these agents in a process involving a cooking syrup which is applied to fresh fruit pieces. Thus, there is no teaching or suggestion in Agarwala relating to the preparation of a dried fruit product as claimed in the present invention.

(*Id.* at 7.)

Similarly, to overcome the disclosure of acid additives for flavoring in the prior art, the applicants argued that the acids in the Mazin process were not used for that particular purpose. (*Id.* at 6.) According to the applicants, “while the use of acids is known in the food additive industry, it is not obvious to use acids in the specific step to prepare the meat of the dried fruit for rehydration.” (*Id.*) The applicants further argued that the prior art did not teach or suggest the acidulation step “to substantially remove the flavor of the dried fruit” (*Id.*) Thus, the applicants plainly stated that their invention required the use of acid to remove flavor and conceded that using acids to add flavor did not fall within the scope of the claims.

The applicants also criticized the prior art methods because they made products with a sticky outer surface. For example, the applicants distinguished the Barlow patent by arguing that the process caused the flavoring to dry on the outer surface of the fruit making it sticky:

It is further submitted that in the method taught by Barlow, most of the juice being applied to the dried fruit would dry on the outer surface of the fruit. ... In the present invention, the meat of the dried fruit is flavored by allowing the flavor solution to infuse through the outer surface of the dried fruit, and to permeate and stabilize in the dried fruit. The result is a food product in which the flavoring agent is contained substantially within the meat of the fruit and it is non-sticky to the touch.

⁴ The Agarwala patent states that the disclosed process is suitable for use with all types of fresh fruit, such as apples, pears, cherries, apricots, pineapple, peaches, plums, and the like. (Woodford Decl. Ex. 5 at 3:18-27.) The patent also states that previously frozen fruits or canned fruits may also be used. (*Id.*)

(*Id.* at 6.) Later in their response, the applicants criticized the Barlow method again and stated that his process made a product with a flavor coating on the outside of the fruit:

Applicants submit that there are significant differences between the product of Barlow and the product of the present application. ... As discussed supra, the food product of the present invention has flavoring which permeates through the outer surface and the meat, without leaving the surface sticky to the touch. ... In contrast, the food product produced by the method of Barlow consists of a flavored coating surrounding the meat of a dried fruit product, with the dried fruit product retaining its natural flavor characteristics. In addition, the Barlow product is sticky to the touch.

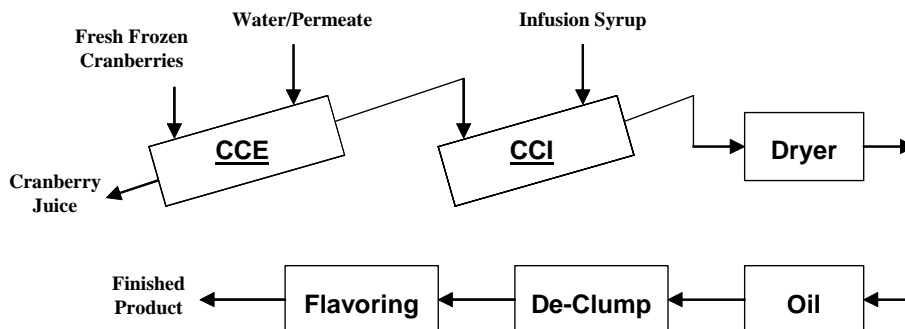
(*Id.* at 10.) The applicants also stated that the application of a sweetening agent to the outer surface of the product makes it sticky and reduces flow properties. (*Id.* at 5.)

C. Ocean Spray's Process Treats Fresh, Frozen Cranberries, Uses Water to Remove Flavor, and Adds a Topical Flavoring to the Outer Surface of the Cranberries.

Ocean Spray has been an innovator and market leader in the cranberry industry for more than 75 years. More than ten years ago, Ocean Spray developed and patented a countercurrent extraction and countercurrent infusion process that was specially designed for making cranberry products. (Woodford Decl. Ex. 6.) Ocean Spray has used this process since 1995 to make its sweetened dried cranberries, which retail consumers know as Craisins®.⁵ The following diagram shows the relevant steps of Ocean Spray's process for making its sweetened dried cranberry products:⁶

⁵ ARI has accused Ocean Spray's process for making several varieties of sweetened dried cranberry products of infringement, including those products flavored with cherry, orange, strawberry, blueberry, raspberry, and mixed berry. All of these products are made with the process described herein.

⁶ Ocean Spray makes its sweetened dried cranberry products at two facilities—one in Tomah, Wisconsin and one in Middleboro, Massachusetts. (Mantius Decl. ¶ 4.) The manufacturing processes at the two facilities are essentially the same. (*Id.*) The differences are not relevant to the instant motion. (*See id.* ¶¶ 5-11.)



(Scott Decl. ¶ 3, Mantius Decl. ¶ 5.)

Ocean Spray's process begins with fresh cranberries that are frozen just after the fall harvest. (Scott Decl. ¶ 4.) The frozen cranberries are sliced and defrosted with heated cranberry juice before they are dropped into the bottom of a countercurrent extractor ("CCE"), as shown in the diagram above. (*Id.* ¶¶ 4-5.) The CCE extracts a desired amount of cranberry juice (i.e., fruit solids consisting of sugars and acids) from the pieces. (*Id.* ¶ 5, Ex. B.) Either water or permeate recovered from extracted cranberry juice is fed into the top of the CCE.⁷ (*Id.* ¶ 5, Ex. C.)

The CCE has a long, trough-shaped housing that is slightly inclined with a helical screw conveyor that runs its entire length. (*Id.* ¶ 5-6; Woodford Decl. Ex. 6 at Figures 1-2.) The screw conveyor moves the cranberry pieces up the incline against the water flowing down the CCE trough. (Scott Decl. ¶ 6.) The flow of water against the pieces causes a desired amount of cranberry juice (and thus flavor) to be extracted from the pieces and replaced with water by osmosis. (*Id.*) Using this process, the brix level (i.e., sugar content) of the raw cranberries can be reduced by as much as 95% and the acid content by as much as 90%. (*Id.*) However, the overall moisture content of the cranberry pieces stays consistent throughout the process at approximately 90%. (*Id.*) The moisture content of the pieces is illustrated by the following

⁷ Ocean Spray's manufacturing plants are limited in the amount of waste water they can expel. (Scott Decl. ¶ 7.) Consequently, in addition to well water, Ocean Spray uses cranberry juice permeate in the extraction process. Permeate is a water byproduct created when the extracted cranberry juice is concentrated by a reverse osmosis system. (*Id.*)

photographs of samples taken just before the fruit enters the CCE (on the left) and just after the fruit emerges from the CCE (on the right):



(Scott Decl. ¶ 8, Ex. D, E.)

At no time does the process of removing flavor from the cranberry pieces involve the treatment of dried fruit as required by the Mazin patent. Indeed, the treatment of dried cranberries would be inefficient and impractical. Unlike grapes, cherries, apricots, and the other fruits disclosed in the Mazin patent, which can be eaten in their natural state or dried for consumption at a later time, cranberries are extremely acidic and are only edible when treated with sweeteners. Thus, it would be a complete waste of time and resources to dehydrate cranberries only to rehydrate them later for processing.

Moreover, at no time is an acidulant added to the water or permeate during extraction. (Scott Decl. ¶ 5.) In fact, the use of acidulants in Ocean Spray's process would actually *prevent* the removal of flavor from the highly-acidic cranberry pieces. The extraction process relies on osmosis, which involves the diffusion of liquids through a semipermeable membrane separating solutions of different concentrations until the concentrations on both sides of the membrane are equal. Because of this phenomena, the use of water in the extraction process will provide the

highest juice yields and flavor removal. If the solution contained an acidulant, as the Mazin patent requires, the concentration of acid in the extraction solution would be equal to or greater than the acid in the cranberry pieces. Consequently, the extraction solution would not be able to remove acid from the pieces and the process would fail.

After the extraction process, the pieces are placed in the bottom of a countercurrent infuser (“CCI”). (Scott Decl. ¶ 9, Ex. F.) An infusion syrup typically containing a colorant, sweetener, and citric acid is placed in the top of the CCI. (*Id.* ¶ 9, Ex. G.) The CCI works much like the CCE, but in reverse. The infusion syrup adds the desired color and sweetness to the cranberry pieces and the citric acid replaces a portion of the acid removed during extraction to intimate a significant level of cranberry juice content in the finished product, as is common in the food industry. (*Id.* ¶ 10; Mantius Decl. ¶ 7.) In other words, the citric acid serves to mimic the characteristic tart flavor of cranberry, which consumers expect of Ocean Spray’s sweetened dried cranberry products.⁸ (*Id.*)

The clumping of the cranberry pieces is a significant problem associated with Ocean Spray’s manufacturing process. (Scott Decl. ¶ 11.) Several measures are taken during the process to remove as many clumps as possible from the end product. For example, after the pieces emerge from the CCI, they are covered with infusion syrup. (*Id.*, Ex. H.) To remove this excess syrup from the fruit’s outer surface, the pieces are sprayed with water as they are transported to the dryer. (*Id.*) Next, during the drying process, several rotating shafts are used to break up as many clumps as possible. (*Id.* ¶ 12.) As a further measure, when the pieces exit the dryer, they are immediately sprayed with oil. (*Id.* ¶ 13-14, Ex. I.) But even after all of this, the outer surface of the pieces are still extremely sticky and the pieces will remain bound in large

⁸ Citric acid is not used to make blueberry-flavored products because these products are not intended to have a cranberry flavor. (Mantius Decl. ¶ 7.)

clumps when compressed. (*Id.* Ex. J.) Consequently, the cranberry pieces are passed through an oiling drum to ensure that a uniform coat of oil covers each piece. (*Id.* ¶ 14, Ex. M.) The pieces are then moved over a vibrating shaker screen that sizes the product and segregates the clumps for further processing. (*Id.* Ex. N, O.) Despite all of these measures, it is not uncommon to see baseball-sized clumps of dried cranberry pieces in the production line. (*Id.* ¶ 13, Ex. K, L.)

After the pieces are oiled and de-clumped, they are run through a flavoring drum that applies a topical flavoring to the pieces.⁹ The topical flavoring used by Ocean Spray is a flavor crystal that sticks to the outer surface of the cranberry pieces. (*Id.* ¶ 15.) The flavor crystals make the pieces more difficult to handle. (*Id.*)

LEGAL STANDARDS

A. To Successfully Oppose Summary Judgment, ARI Must Set Forth Specific Facts That Show There Is a Genuine Issue For Trial.

The standard for summary judgment in a patent case is no different from any other type of action. *Union Carbide Corp. v. Am. Can Co.*, 724 F.2d 1567, 1571 (Fed. Cir. 1984).

“Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law.” *United States Gypsum Co. v. Nat’l Gypsum Co.*, 74 F.3d 1209, 1212 (Fed. Cir. 1996). Because the first step in an infringement analysis—claim construction—is purely a question of law, the question of infringement is amenable to summary judgment where, as here, the parties do not dispute any relevant facts regarding the accused process. *General Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 980-81 (Fed. Cir. 1997).

⁹ The flavoring crystals are not applied to the blueberry-flavored products. (Scott Decl. ¶ 15.)

B. Summary Judgment of Noninfringement Should Be Granted Where, As Here, the Properly Construed Claims Do Not Cover Ocean Spray's Process.

Determining whether an accused process infringes a patent claim is a two-step process. First, the Court construes the asserted claims to determine their scope and meaning. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996). Second, the properly construed claims are compared to the allegedly infringing process. *Id.* As the patentee, ARI bears the burden of proving infringement. *TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1371 (Fed. Cir. 2002). General assertions of fact and conclusory statements by experts are insufficient to satisfy this burden. *Id.* at 1371-72.

1. Claims Should Be Given a Meaning Consistent with the Intrinsic Record.

Claim construction is a question of law. *Markman*, 52 F.3d at 983-84. Recently, an *en banc* panel of the Federal Circuit clarified the approach courts should use to construe the claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). In *Phillips*, the Federal Circuit emphasized the significance of the claim language as a first step in the claim construction process. *Id.* at 1312. "It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Id.* (citing *Innova/Pure Water Inc. v. Safari Water Filtration Sys, Inc.*, 381 F.3d 1111, at 1115 (Fed. Cir. 2004)). The court also stressed that in some cases claim construction "involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314.

The claims must always be read in view of the patent specification. *Id.* at 1315. "Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* (quoting *Renishaw*

PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

After reviewing the claims and the patent specification, the Court should also consider the final piece of the intrinsic record—the prosecution history. *Id.* at 1317. The prosecution history includes the complete record of proceedings before the patent office and the prior art cited during the examination of the patent. *Id.* “[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

Although the intrinsic record is the most important evidence in claim construction, courts may also look to extrinsic evidence, but this evidence is only reliable when considered in the context of the intrinsic evidence. *Id.* at 1317-19. For example, dictionaries and treatises can be useful tools in claim construction to help the court better understand the technology at issue and the way in which one of skill in the art may use the claim terms. *Id.* at 1318. Expert testimony may also be useful to provide background on the technology at issue, but should be rejected when it is at odds with the intrinsic record. *Id.* at 1318.

2. A Claim Is Not Infringed Where a Single Limitation is Lacking.

An accused product or process must meet every limitation of a patent claim, exactly, in order to literally infringe a patent claim. *Kahn v. General Motors Corp.*, 135 F.3d 1472, 1476 (Fed. Cir. 1998); *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1580 (Fed. Cir. 1989). A product or process that does not literally infringe may nonetheless infringe under the doctrine of equivalents if the accused device contains an equivalent to every limitation that is not literally met. *Warner-Jenkinson Co. Inc. v. Hilton-Davis Chem. Co.*, 520 U.S. 17, 24 (1997). If an accused product or process does not satisfy each and every limitation of a claim either literally or under the doctrine of equivalents, the claim is not infringed. *Kahn*, 135 F.3d at 1481.

ARGUMENT

Ocean Spray's process does not infringe asserted claim 1 as a matter of law. Ocean Spray does not treat a dried fruit as required by the claims, but rather treats fresh, frozen cranberries that contain approximately 90% moisture. The Mazin patent also requires the use of an acidulant to remove flavor—but this limitation is lacking in Ocean Spray's process as well. Ocean Spray does not add an acidulant to the water or permeate used in the extraction process to remove flavor. The only acidulant used by Ocean Spray is citric acid, which is added later in the process to provide cranberry flavor, not remove it. In addition, the general steps of removing flavor, dehydrating, and adding flavor in Ocean Spray's process do not form a non-sticky dried fruit product that is easy to handle as the claims require. To the contrary, the dried fruit pieces produced by these general steps in Ocean Spray's process have a sticky outer surface and cannot be handled without being subject to several additional processing steps.

A. Ocean Spray's Manufacturing Process Does Not Treat "Dried Fruit" and Therefore Cannot Infringe the Asserted Claim of the Mazin Patent.

1. The Court Should Construe "Dried Fruit" to Mean Fruit with a Moisture Content Between About 10% and 18%.

Claim 1 of the patent is directed to a process for preparing a flavored dried fruit product. (Woodford Decl. Ex. 1 at 10:1-25.) Step (a) of the claim, produced below, explicitly states that the claimed process requires the treatment of a "dried fruit":

(a) treating a *dried fruit* with an acidulant being selected from the group consisting of tartaric acid, malic acid, citric acid, ascorbic acid, phosphoric acid and fumaric acid, in an amount and for a period of time which is sufficient to substantially remove the natural flavor of the dried fruit;

(*Id.* (emphasis added).)

The term "dried fruit" as used in the claims, throughout the patent specification, and during prosecution does not differ from the meaning commonly understood by the public, and

thus does not require a complex construction. The first paragraph of the “Detailed Description of the Invention” in the Mazin patent explains that “the dried fruits which may be flavored employing the processes of the inventions include peach, apple, pear, raisins, prunes, apricots and cherries.” (*Id.* at 3:58-60.) The patent then states that “[a]ny dried fruit which contains between about 10% and 18% moisture may be employed.” (*Id.* at 3:60-62.) The use of “dried fruit” throughout the rest of the patent is consistent with this 10% to 18% moisture requirement. (*See, e.g., id.* at 3:64-4:4, 6:65-9:67.)

The prosecution history also confirms the definition of dried fruit provided in the patent specification. During prosecution, the examiner relied on the Agarwala patent to reject the pending claims. (*Id.* Ex. 3 at 3-4.) The Agarwala patent disclosed a process of treating fresh fruit (which includes both frozen and canned fruit) rather than dried fruit. (Woodford Decl. Ex. 5 at 2:50-66.) To overcome this reference, the applicants distinguished “fresh fruit” from “dried fruit,” just as they did in the patent specification:

Applicants submit that Agarwala teaches the use of these agents in a process involving a cooking syrup which is applied to *fresh fruit pieces*. Thus, there is no teaching or suggestion in Agarwala relating to the preparation of a dried fruit product as claimed in the present invention.

(*Id.* Ex. 4 at 7 (emphasis added).) As a result of these unambiguous statements, ARI has disclaimed the treatment of fresh fruit as disclosed in the Agarwala patent. *See Rhodia Chimie v. PPG Indus. Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005); *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324-26 (Fed. Cir. 2003). Accordingly, any construction that expands the scope of “dried fruit” to include fresh or previously frozen fruit would violate the doctrine of prosecution disclaimer and should be rejected.

The extrinsic evidence also supports the definition of “dried fruit” in the Mazin patent. USDA regulations from 1990—the year the Mazin patent was filed—specify the allowable

moisture content of raisins, which is the preferred fruit in the Mazin process. The regulation states that seedless raisins shall not contain more than 18% moisture, which falls right in line with the moisture range provided in the patent. *See* 7 C.F.R. § 52.1846 (1990).¹⁰

Based on the relevant intrinsic and extrinsic evidence, the Court should construe “dried fruit” to mean “fruit that contains between about 10% and 18% moisture.” Furthermore, consistent with the applicant’s arguments during prosecution, the Court should not permit the definition of “dried fruit” to include fresh or previously frozen fruit.

2. Ocean Spray Treats Fresh, Frozen Cranberries In Its Manufacturing Process, Not Dried Fruit.

At no time does Ocean Spray treat “dried fruit” as required by claim 1 of the Mazin patent. Rather, Ocean Spray treats raw cranberries that have been frozen and defrosted in the flavor removal step. (Scott Decl. ¶¶ 4-5.) Both the cranberry pieces that enter the CCE and the treated cranberry pieces that exit the CCE have a moisture content of approximately 90 %, which greatly exceeds the 10% to 18% moisture content of “dried fruit” in the Mazin patent. (*Id.* ¶ 6.) The high moisture content of the cranberry pieces both before and after extraction is evident from the photographs of samples produced to ARI in discovery. (Scott Decl. ¶ 8, Ex. D, E.) Accordingly, the “dried fruit” limitation is not satisfied and Ocean Spray’s process does not literally infringe claim 1 of the Mazin patent.

Moreover, as a matter of law, Ocean Spray’s process does not infringe claim 1 under the doctrine of equivalents. The Federal Circuit has set forth a number of limitations on the doctrine of equivalents—two of which apply here. *See K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1366-67 (Fed. Cir. 1999). One limitation, referred to as prosecution history estoppel, prevents a patentee from recovering claim scope that was surrendered during prosecution to obtain the patent. *Id.* at

¹⁰ The applicable regulation is attached to the Woodford Declaration as Exhibit 7.

1367-68. Another limitation, based on the premise that each element in a claim is deemed material to defining the scope of the invention, prevents the doctrine of equivalents from being used to vitiate, or eliminate, a limitation from the claim. *Id.* at 1367 (citing *Warner Jenkinson*, 520 U.S. at 29). Here, if “dried fruit” is expanded to cover fresh, frozen fruits, then the patentee would recover claim scope surrendered to distinguish the disclosure of fresh fruit in the Agarwala patent, which plainly violates the doctrine of prosecution history estoppel. Likewise, if the claim covered fresh, frozen fruit—the exact opposite of “dried fruit”—then the “dried fruit” limitation would be eliminated from the claim. Such a result is improper as a matter of law. *Id.* Accordingly, Ocean Spray’s process does not satisfy the “dried fruit” limitation of the asserted claim either literally or under the doctrine of equivalents.

B. Ocean Spray’s Manufacturing Process Does Not Infringe Because It Does Not Use An Acidulant To Remove Flavor From Cranberries.

1. The Court Should Construe Claim 1 to Require the Use of An Acidulant to Remove the Fruit’s Flavor, Not to Add Flavor Back to the Fruit.

Step (a) of claim 1 also requires the treatment of a dried fruit with one of six acidulants “in an amount and for a period of time which is sufficient to substantially remove the natural flavor of the dried fruit.” (Woodford Decl. Ex. 1 at 10:3-8.) Here, the claim language plainly requires the use of an acidulant to *remove* the natural flavor of the dried fruit, not to *add* flavor.

The patent specification is consistent with the claim language. The patent repeatedly states that the purpose of the acidulant is to remove flavor from the dried fruit. (*See id.* at 2:58-66, 4:38-39, 5:56-64; 6:13-17.) Indeed, the specification distinguishes the use of citric acid to remove flavor and the use of citric acid to add flavor: “Sodium citrate may also be added to the flavor solution to provide a more tart taste, for example when preparing a lemon/lime flavored dried fruit product.” (*Id.* at 5:37-41.)

The applicants made the same distinction during prosecution to overcome the use of citric acid as a food additive in the prior art. The applicants admitted that “the use of acids is known in the food additive industry,” but argued that it was “not obvious to use acids in the specific step to prepare the meat of the dried fruit for rehydration” or “to substantially remove the flavor of the dried fruit.” (Woodford Decl. Ex. 4 at 6.) Here again, a construction that includes the use of acid to add flavor would violate the doctrine of prosecution disclaimer and should be rejected. *See Rhodia*, 402 F.3d at 1384; *Omega Eng’g*, 334 F.3d at 1324-26.

2. Ocean Spray Removes Flavor By Using Water or Permeate Recovered From Cranberry Juice and Only Uses Citric Acid for Flavoring.

Ocean Spray uses water or cranberry juice permeate to remove flavor from its cranberry pieces during the extraction process. (Scott Decl. ¶ 5.) Ocean Spray does not add an acidulant to the water or cranberry juice permeate. (*Id.*) The only time Ocean Spray uses any type of acidulant in the process is to replace a portion of the acid removed during extraction to give the pieces the characteristic tart cranberry flavor. (Mantius Decl. ¶ 7.)

Indeed, Ocean Spray measures the acidity of the extracted fruit pieces to tightly control the citric acid formulation of the infusion syrup and the acid content of the final product. (*Id.*) For example, during the extraction process, the acid content of the cranberry pieces is reduced from approximately 2.4% to 0.25%. (Scott Decl. ¶ 6.) Ocean Spray adds citric acid to the pieces during infusion to bring their acid content within a range of 1.2% to 1.8%, depending on the product. (*Id.* ¶ 10.) The final acid content is roughly half that of an untreated cranberry—which provides the desired cranberry taste, but is not too strong for consumption. (*Id.*)

Accordingly, because Ocean Spray does not use an acidulant to remove flavor, it does not literally infringe the asserted claim of the Mazin patent. And, as a matter of law, Ocean Spray does not infringe the claim under the doctrine of equivalents. The use of citric acid to add flavor

was surrendered during prosecution to obtain the patent and may not now be recovered by equivalence. *K-2 Corp.*, 191 F.3d at 1367-68. Moreover, the doctrine of equivalents may not allow a patent claim to encompass subject matter existing in the prior art. *Id.* at 1367. Here, the use of citric acid as a food additive existed in the prior art and the applicants distinguished that particular use to obtain the claims. ARI cannot now expand the asserted claim to cover subject matter that could not have been lawfully patented in the first instance. *Id.*

C. Ocean Spray's Manufacturing Process Does Not Infringe Because It Does Not Satisfy the Limitation Requiring "an outer surface which is substantially non-sticky whereby the flavored dried product may be easily handled."

1. The Court Should Construe the Claim to Require the Product be "non-sticky to the touch so that it does not bind together or form lumps."

The plain language of claim 1 requires that the claimed steps of (a) treating dried fruit to substantially remove all flavor, (b) dehydrating the fruit to a desired moisture content, and (c) treating the fruit with a flavoring agent form a product with a non-sticky outer surface:

and *so forming* a flavored dried fruit product having a flavor which is substantially the same as the flavor of the flavoring agent and having an outer surface which is substantially non-sticky whereby the flavored dried fruit product may be *easily handled*.

(Woodford Decl. Ex. 1 at 10:19-24.)

The claim language requires that the product have an outer surface that is substantially non-sticky so the product may be "easily handled." The patent specification does not describe a product that is "easily handled," but it does describe one that is not. According to the patent, products that are not easy to handle "may form lumps which cause difficulties in handling, packaging, obtaining exact product weights, and incorporating into other food stuffs." (*Id.* at 2:19-23.)

These undesirable effects were reiterated during prosecution to overcome the Barlow patent. (*Id.* Ex. 4 at 6.) The applicants explained that the outer surface of the fruit made by

Barlow's process would become sticky and "reduce flow properties" for a number of reasons, including the presence of dried juice on the fruit's outer surface and the application of a sweetening agent on the outside of the fruit. (*Id.* at 5-6, 10.) Ultimately, the applicants attempted to distinguish Barlow by stating that his product was "sticky to the touch" and claimed that the product formed by the Mazin process is "non-sticky to the touch." (*Id.* at 10.)

Based on the intrinsic record, the Court should construe "easily handled" to mean that the product is "non-sticky to the touch so that it does not bind together or form lumps."

2. The General Steps of Removing Flavor, Dehydrating, and Adding Flavor In Ocean Spray's Process Form a Sticky Product that Lumps Together.

The general steps of treating fruit to remove flavor, treating the fruit with a flavoring agent, and dehydrating the fruit to a desired moisture content in Ocean Spray's process do not "so form" a product that is non-sticky to the touch so that it does not bind together or form lumps. To the contrary, Ocean Spray's process forms an extremely sticky product—so sticky, in fact, that several processing steps are necessary to handle the product. (Scott Decl. ¶ 11.) For example, Ocean Spray uses a water spray to wash syrup from the outer surface of the fruit as taught in the Barlow patent, uses a rotating shaft with fingers to break up clumps during the drying process, sprays the pieces with oil, and then passes them through an oiling drum. (*Id.* ¶¶ 11-14.) Yet, after all of these measures, the product contains numerous clumps including, some as large as baseballs. (*Id.* ¶¶ 13-14, Exs. K-L, N-O.) Only after the clumps are segregated by vibrating shaker screen and processed by additional clump-breaking equipment can the pieces be processed. (*Id.* ¶ 14.) In addition, Ocean Spray adds a topical flavoring agent, which the applicants criticized for making the outer surface of the fruit sticky. (*See* Woodford Decl. Ex. 4 at 5.)

Because Ocean Spray's process forms products that have an extremely sticky outer surface and are difficult to handle, it cannot literally satisfy the "easy to handle" limitation of claim 1. In addition, Ocean Spray's accused process does not infringe the claim under the doctrine of equivalents. During prosecution, the applicants surrendered any coverage of processes that form products that are difficult to handle and therefore ARI is barred from claiming equivalence by the doctrine of prosecution history estoppel. *K-2 Corp.*, 191 F.3d at 1367-68. Moreover, if "easy to handle" was expanded to include product that is "difficult to handle" the limitation would be improperly vitiated from the claims. *Id.* at 1367. Accordingly, for a third reason, Ocean Spray does not infringe claim 1 either literally or under the doctrine of equivalents as a matter of law.

CONCLUSION

For the foregoing reasons, Ocean Spray respectfully requests that the Court grant its Motion for Summary Judgment of Noninfringement of claim 1 of the Mazin patent.

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